

ABSTRACT
ANTI-SICKLING AGENTS

The provides compounds for the treatment of sickle-cell disease. In particular, the invention provides 5-membered heterocyclic anti-sickling agents that are highly effective and non-toxic, and methods for their use. The compounds include analogues and derivatives of naturally occurring occurring 5-hydroxymethyl-2-furfuraldehyde, 5-Ethyl-2-furfuraldehyde, 5-Methyl-2-furfuraldehyde, and 2-furfuraldehyde, and prodrug forms of the compound.